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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,317	07/09/2001	Alexandros Biliris	2000-0280-CON	9040
<div>7590 Mr. S H Dworetsky AT&amp;T CORP. Room 2A-207 One AT&amp;T Way Bedminster, NJ 07921</div>				
EXAMINER				
JEAN GILLES, JUDE				
ART UNIT		PAPER NUMBER		
2443				
MAIL DATE		DELIVERY MODE		
10/31/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

09/901,317

## Applicant(s)

BILIRIS ET AL.

## Examiner

JUDE J. JEAN GILLES

## Art Unit

2443

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3, 4, 7-18, 25, 27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3, 4, 7-18, 25, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in Reply to communication filed on 07/31/2008.

#### ***Response to Amendment***

1. In this Reply, claims 3, 7-10, and 25 have been amended. However, in page 7 of the Remarks submitted on 07/31/2008, Applicants state that claims 1, 7-9, and 25 have been amended. The Examiner assumes this is typographical error since claim 1 has been cancelled, independent claims 3 and 25 currently amended to further clarify the language of claimed subject matter, and claims 7-10 previously depending on cancelled claim 6, are now amended to depend on claim 3. Claims 7-10 were previously objected to for dependency reasons. Applicants have corrected the same and the objection has been removed. Claims 3, 4, 7-18, 25, 27, and 28 are pending in this application and represent a "METHOD AND APPARATUS FOR CONTENT DISTRIBUTION NETWORK BROKERING AND PEERING".

#### ***Response to Arguments***

2. In response to Applicants' arguments, 37 CFR § 1.11(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must show the amendments avoid such references or objections."

Applicants' arguments filed 07/31/2008 have been fully considered but they are not persuasive. Applicants' arguments are deemed moot in view of the existing ground

of rejection as explained here below. Applicants' amendments to the independent claims are not properly made to perhaps uniquely place them in condition for allowance.

The dependent claims stand rejected as articulated in the Previous Office Action and all objections not addressed in Applicant's response are herein reiterated.

However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention:

Applicants contend mainly that the rejection of the submitted claims under Dutta in view of Narendran should be traversed and submit that the primary reference of Dutta fails to teach the concept of rewriting a pointer before serving the content to the client. Applicants submit for that reason, the claims are patentable and in condition for allowance.

The Examiner disagrees with applicants characterization the of the prior art of record. The Examiner has cited Dutta, column 4, lines 52-67, continue in lines 1-9 of column 5. Applicants have amended the claim to specify that the modifying of the HTML file is done after the document is retrieved by the web client. If we admit for a moment that the Applicants assertion is true, that is Dutta does not specifically teach this limitation of the claim as amended, Narendran, the secondary reference in the combination is ready to address this limitation of the claim. Narendran a load distribution algorithm is used for initial distribution of a set of documents across the servers and determination of the redirection probabilities and retrieval of such documents. In column 4, 19-40,

Narendran teaches that the redirection servers 14-1 or 14-2 redirect a request from a client to a document server only if a copy of the document is available at that server, and that redirection is done prior to fetching the document. An ordinary skill in the art understands that the pointer to the server in which the document is available is updated accordingly.

Examiner notes that applicants have failed in presenting claims and drawings that delineate the contours of this invention as compared to the cited prior art. Applicant has failed to clearly point out patentable novelty in view of the state of the art disclosed by the references cited that would overcome the 103(a) rejections applied against the claims, the rejection is therefore sustained.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 7-18, 25, and 27-28 remain pending are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta U.S. patent No. 6,772,208 in view of Narendran et al (Narendran) U.S. 6,070,191.

**Regarding claim 3:** Dutta teaches the invention substantially as claimed. Dutta teaches a method of serving content in a packet-switched network comprising:  
choosing from a plurality of content distribution networks which content

distribution network will respond to a content request from a client (*fig. 4A; column 8, lines 47-60*);

redirecting the client to the chosen content distribution network by rewriting a pointer embedded in a document as a rewritten pointer before serving the content to the client so that the content request will be served by the chosen content distribution network as indicated by the rewritten pointer (*column 2, lines 63-67, continue lines 1-18 of column 3; column 4, lines 52-67, continue in lines 1-9 of column 5*) and

Although Dutta teaches the features above, Dutta does not disclose the details of "...a content distribution networks that does not exceed a predetermined capacity reserved on the one of the plurality of content distribution networks". Nonetheless this feature is well known and would have been obvious modification to the system shown by Dutta as evidenced by Narendran.

In the same field of Endeavor, Narendran teaches "...Thus, the documents are distributed such that the load on each server is proportional to its capacity in terms of the maximum number of HTTP connections that it can support simultaneously..."[see Narendran; column 5, lines 30-46] and further discloses "...Unlike the previous two examples, in this case the solution is able to achieve only "approximate" load balance. The flow from server S.sub.3 to the sink, which specifies the load on S.sub.3, is 0.61, which is 0.14 less than its capacity. This load has been diverted to S.sub.1 as extra load as shown on the redundant arc between S.sub.1 and the sink. Thus, the load on S.sub.1 is now 0.34..." ..."[see Narendran; column 14, lines 20-48].

In the reply dated Applicants have argued that Dutta does not teach the limitation of modifying the redirection file prior to retrieving the requested document. Narendran specifically teaches this limitation and would be another obvious modification for the system of Dutta (see Narendran column 4, 19-40).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Narendran's features above with the teachings of Dutta. This combination will provide the ability of a content producer to determine the content distributor that lead a client to the content producer's site and should provide content producers with an efficient way to negotiate payment or other terms from content distributors before the privilege of hyperlinking is allowed (see Dutta, Column 3, lines 3-7), thereby ensuring that the load is properly balances across N document servers (see Narendran, Summary). By this rationale, claim 3 is rejected.

**Regarding claim 4:** the combination Dutta-Narendra teaches the method of claim 3 wherein the content distribution network is chosen based, at least partly, determination of which of the plurality of the content distribution networks is close to the client (*see Narendra, column 2, lines 40-53*).

**Regarding claim 7:** The combination Dutta-Narendra teaches the method of claim 3 wherein the pointer to the embedded content is rewritten to point to a server in the chosen content distribution network [*see Dutta, fig. 4A*; column 4, lines 52-67, continue in lines 1-9 of column 5; column 8, lines 15-60].

**Regarding claim 8:** The combination Dutta-Narendra teaches the method of claim 3 wherein the pointer to the embedded content is rewritten to point to a domain

name served by the content distribution network [see *Dutta, fig. 4A*; column 4, lines 52-67, continue in lines 1-9 of column 5; column 8, lines 15-60].

**Regarding claim 9:** The combination Dutta-Narendra teaches teach the method of claim 3 wherein the pointer to the embedded content is rewritten so that an original reference may be readily parsed from a corresponding one of the rewritten reference (see *Dutta, fig. 4A*; column 4, lines 52-67, continue in lines 1-9 of column 5; column 8, lines 15-60).

**Regarding claim 10:** The combination Dutta-Narendra teaches the method of claim 10 wherein the chosen content distribution network utilizes the corresponding one of the rewritten references to obtain the embedded content if the chosen content distribution network does not have an up-to-date copy of the embedded content in a cache (see *Narendra; column 4, lines 16-40*).

**Regarding claim 11:** The combination Dutta-Narendra teaches the method of claim 3 wherein the step of redirecting the client to the chosen content distribution network further comprises resolving domain name system queries resolve to content served by the chosen content distribution network [see *Dutta*; column 4, lines 52-67, continue in lines 1-9 of column 5; column 8, lines 15-60].

**Regarding claim 12** The combination Dutta-Narendra teaches the method of claim 11 further comprising answering the domain name system queries are answered with a network address of content served by the chosen content distribution network



[see Dutta; column 4, lines 52-67, continue in lines 1-9 of column 5; column 8, lines 15-60].

**Regarding claim 13:** The combination Dutta-Narendra teaches the method of claim 11 comprising answering the domain name system queries with a network address of a domain name system server responsible for the chosen content distribution network [see Dutta; column 4, lines 52-67, continue in lines 1-9 of column 5; column 8, lines 15-60].

**Regarding claim 14:** The combination Dutta-Narendra teaches the method of claim 11 comprising answering the domain name system queries are answered with a domain name of content served by the chosen content distribution network (*see* Narendra; *column 4, lines 1-15*).

**Regarding claim 15:** The combination Dutta-Narendra teaches the method of claim 11 comprising forwarding the domain name system queries to a domain name server responsible for the chosen content distribution network and which directly answers the domain name system queries (*see* Narendra; *column 4, lines 1-15*).

**Regarding claim 16:** The combination Dutta-Narendra teaches the method of claim 3 wherein the content distribution network serves the content request from a local cache and wherein the content distribution network has access to a second copy of the content if there is a cache miss (*see* Narendra; *column 4, lines 17-40*).

**Regarding claim 17:** The combination Dutta-Narendra teaches the content distribution method of claim 16 wherein the content distribution network includes a

table of associations between references to content served by the content distribution network and references to a second copy of the content served from elsewhere in the network [see Dutta; column 4, lines 52-67, continue in lines 1-9 of column 5; column 8, lines 15-60].

**Regarding claim 18:** The combination Dutta-Narendra teaches the method of claim 16 wherein the content distribution network can transform references to content served by the content distribution network into second references to a second copy of the content served from elsewhere in the network (see Narendra; *column 4, lines 16-40*).

**Regarding claim 25:** The combination Dutta-Narendra teaches a system comprising:

means for choosing a content distribution network from a plurality of content distribution networks for responding to a content request from a clients (Dutta; *column 2, lines 63-67, continue lines 1-18 of column 3*); and

means for redirecting the client to the chosen content distribution network by rewriting a pointer embedded in a document as a rewritten pointer before serving the content to the client so that the content request will be served by the chosen content distribution network as indicated by the rewritten pointer (Dutta; column 4, lines 52-67, continue in lines 1-9 of column 5; see Narendran; column 4, 19-40) and  
wherein

the means for choosing a content. distribution network from a plurality of content distribution networks for responding to a content request from a client is

configured to choose a content distribution network only if a measured load of the content distribution network does not exceed a predetermined capacity reserved on the content distribution network [see Narendra; *fig. 3*; column 5, lines 30-46; column 14, lines 20-48; column 3, lines 1-23]

**Regarding claim 27:** The combination Dutta-Narendra teaches the system of claim 25, further comprising:

means for serving content from a local cache (see Dutta, *column 2, lines 63-67, continue lines 1-18 of column 3*); and

means for serving content from a second copy of the content when the means for serving content from a local cache experiences a cache miss *see Narendra; fig. 3; column 5, lines 30-46; column 14, lines 20-48; column 3, lines 1-23*].

**Regarding claim 28:** The combination Dutta-Narendra teaches the system of claim 27, further comprising:

means for transforming references to content served by the content distribution network into second references to the second copy of the content served from elsewhere in the network *see Narendra; fig. 3; column 5, lines 30-46; column 14, lines 20-48; column 3, lines 1-23*]

***Conclusion***

5. Applicant's amendment necessitated the grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger, can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3301.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0800.

/Jude J Jean-Gilles/

Primary Examiner, Art Unit 2443

JJG

October 25, 2008